Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
	)	
Amendment of Part 90 of the	)	PR Docket No. 93-61
Commission's Rules to Adopt	)	
Regulations for Automatic	)	
Vehicle Monitoring Systems	)	

To: The Commission

REPLY
TO OPPOSITIONS
TO PETITIONS FOR RECONSIDERATION

METRICOM, INC.
and
SOUTHERN CALIFORNIA EDISON COMPANY

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REPLY TO OPPOSITIONS TO
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Metricom, Inc. and Southern California Edison Company ("Petitioners"), pursuant to Section 1.429 of the Commission's Rules, hereby submit this Reply to various Oppositions to Petitions for Reconsideration which were filed in this proceeding.

I. PART 15 IS NOT CO-PRIMARY WITH LMS IN THE 902-924 MHz BAND.

1. AirTouch Teletrac ("Teletrac"), Southwestern Bell Mobile Systems ("SW") and Pinpoint Communications, Inc. ("Pinpoint") claim that the Commission has elevated the status of Part 15 devices so that Part 15 devices are co-primary in the band with LMS systems. This results, they claim, from the Commission's adoption of (i) the testing requirement in new Rule Section 90.353(d); and, (ii) the presumption in new Rule Section 90.361.[1/]

2. The Commission must find it difficult to take seriously this claim about the presumption by the LMS industry. Only a year ago, the LMS industry advocated this position. LMS proponents told the Commission that it should adopt an "interference threshold below which interference from Part 15 devices may not be considered harmful by an LMS operator."[2/]

[1/] Teletrac Opposition pp. 2-9; SW Opposition pp. 8-15; Pinpoint Opposition pp. 7-15. Pinpoint at p. 9 also raises the specter of "greenmail" by Part 15 devices as an evil caused by the presumption. Not one shred of evidence exists in the record that users of Part 15 devices have ever intentionally interfered with AVM systems much less intentionally interfered with them for money. An irrebuttable presumption is not necessary for Part 15 devices to engage in this type of activity. Identifying an interfering Part 15 device would be very difficult for an LMS operator, particularly if the Part 15 device were portable or mobile; a potential "greenmailer" could continually switch devices and locations of operation offering "protection" from such interference for money even without a presumption.

[2/] Ex parte Letter from Teletrac, Pinpoint, MobileVision, L.P. ("Mobile) and Uniplex to Ralph A. Haller, Chief, Private Radio Bureau, dated June 23, 1994. While the threshold or presumption proposed by the LMS industry is measured by field strength value rather than

(continued...)

3. The presumption and testing are integral parts of the Commission's attempt to balance the interests of the public (which owns and employs an enormous embedded base of Part 15 devices) with the interests of the nascent LMS industry.[3/] A rebuttable presumption is a euphemism for no presumption. The Commission should not delete the irrebuttable presumption inherent in new Rule Section 90.361.[4/]

[2/](...continued)
antenna height and power, the concept of a safe harbor for Part 15 device operations was advanced by these LMS proponents and it is similar to the presumption inherent in new Rule Section 90.361. The LMS proponents, therefore, got what they requested.

[3/] Petitioners are fully cognizant of the secondary status of Part 15 devices under the current Rules. Petitioners also recognize that the Commission has discretion and authority to allocate spectrum to new services. However, manufacturers and consumers of Part 15 devices have a right to expect that any change in the Rules affecting the operation of unlicensed devices will not make these devices unusable. When the Commission was encouraging the development of spread spectrum Part 15 operations in the 902-928 MHz band, it never gave any indication that a radical, new, interference-prone service like LMS would subsequently be inserted into the 902-928 MHz band; nor did the Commission suggest that Part 15 devices would be required not to interfere with any new service the Commission subsequently placed in the band. To the contrary, the Commission made it clear that Part 15 manufacturers and consumers need only be concerned about causing interference to "established" services in this band. See, Report and Order, Gen. Docket 89-354, 5 FCC Rcd. 4123, 4124 (1990). The presumption inherent in new Rule Section 90.361 balances the legitimate Commission-created expectations of the Part 15 Community relative to new services in the band with the Commission's desire to enable LMS.

[4/] Pinpoint, at p.17 of its Opposition, asserts that if the Commission were to clarify new Rule Section 90.361(c)(2)(ii)(B) as Petitioners request, "the presumption would swallow the rule." This is so, Pinpoint alleges, because Pinpoint believes monitoring various uses of Part 15 devices by Subpart B and C eligibles would be very difficult if these eligibles were to use point-to-point systems for non-emergency related communications and if these eligibles were to share such facilities with non-safety related agencies. Pinpoint provides no justification for these allegations. The allegations merely raise "straw-men." Similarly, Pinpoint's statement at p. 13 of its Opposition that it agrees with Uniplex that a distance variable should be added to the presumption is unsupported and unjustified. Pinpoint does not even bother to explain why it agrees with Uniplex. Accordingly, the statement should be disregarded by the Commission.

4. In creating the presumption and calling for testing, the Commission has not changed the hierarchy in the band so that Part 15 is now co-primary with LMS.[5/] The first sentence of new Rule Section 90.361 states: "Operations authorized under Parts 15 and 97 of this Chapter may not cause harmful interference to LMS systems in the 902-928 MHz band." Part 90 of the Rules -- not Part 15 -- contains the testing requirement and the presumption. The Commission has made no fundamental alteration of the Part 15 Rules and has explicitly not made Part 15 co-primary with LMS, despite Teletrac's, SW's and Pinpoint's allegations to the contrary. Continually stating that the Commission has altered Part 15 does not change the fact that the Commission has not altered Part 15 in this proceeding.[6/]

II. THE NEW RULES SHOULD APPLY TO GRANDFATHERED SYSTEMS.

5. Teletrac, SW and Texas Instruments ("TI") oppose the application of all new Rule Sections to all grandfathered AVM systems.[7/] The new, balanced policy adopted in the Report and Order is as much in the public interest now as it will be when current systems convert their AVM licenses to LMS licenses. The problems the Commission foresaw when it adopted the

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[5/] Pinpoint's argument at pp. 6-9 of its Opposition that the Commission has altered Part 15 of the Rules without proper notice and comment chooses to ignore the fact that the Commission did *not* alter Part 15 of the Rules in the Report and Order. Accordingly, Pinpoint's argument is fundamentally flawed.

[6/] In the same vein is MobileVision's Opposition at page 9 which states: "As previously demonstrated, certain Part 15 users such as Metricom will, if allowed to deploy under the protection of nonrebuttable presumptions, be the primary cause of crippling interference to both LMS providers and the majority of Part 15 users." See, also, Pinpoint's assertion on p. 16 of its Opposition that "Metricom will be the largest source of interference to all users in this band...." These statements are simply not supported by the record. Petitioners vehemently disagree with these assertions.

[7/] Teletrac Opposition pp. 9-12; SW Opposition pp. 11-12, 19; TI Opposition pp. 20-24.

Report and Order exist now[8/] and will continue to exist during the transition to the new LMS requirements. The Commission should make its new interference Rules applicable to existing AVM systems.

6. Pinpoint wants grandfathered LMS systems to be capable of being materially altered.[9/] Petitioners oppose such major modifications because Petitioners are concerned that Pinpoint and MobileVision L.P. ("MobileVision") will so greatly modify their authorized facilities that LMS transmissions will deluge the band and lead to significantly more interference. Therefore, such systems should not, as a matter of policy, be allowed to expand or modify their facilities unless they are in full compliance with the revised Rules.

III. VOICE COMMUNICATION SHOULD NOT BE ALLOWED IN THE BAND.

7. Teletrac in its Opposition, obviously envisioning more possible revenues from its LMS systems, joins MobileVision in an attempt to justify the position that there should be no arbitrary restriction on expanded voice use of LMS spectrum.[10/] Teletrac states that the marketplace should decide if and how much voice usage should be in this spectrum. It is apparently fine with Teletrac if the market fills the band with voice traffic.

8. Petitioners vehemently disagree with Teletrac's position and suggest that this is an excellent example of why the market cannot, in all cases, be a perfect surrogate for the

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[8/] See, e.g., Letter from Henry L. Razor, Network Field Engineer, Pactel Teletrac to George Martin, Sherwin-Williams Co. dated Dec. 29 ,1992 (demanding that Sherwin-Williams cease operation of a spread spectrum device "causing harmful interference" to Teletrac's vehicle location system).

[9/] Pinpoint Opposition p. 23. See also, MobileVision Opposition p. 5.

[10/] Teletrac Opposition pp. 12-15. See also, MobileVision Opposition p.3. It is interesting to note it appears that what these parties are attempting to do is to create a PCS service through the back door.

Commission. Voice communication does not belong in this extremely congested band, nor is it an indispensable element of LMS.[11/] The Commission recognized this fact and has attempted to restrict LMS' voice usage of the band. Depriving LMS subscribers of voice capability is not actually depriving them of anything. Other mobile communications services are available specifically designed for voice service.

9. Teletrac disseminates more misinformation on this issue by saying that if a LMS system whose voice capability is interconnected with the telephone network is a commercial mobile radio service ("CMRS"), Metricom's Ricochet network is also a CMRS.[12/] Petitioners would like to think that Teletrac's statement is unintentional and that Teletrac is simply unaware of the fact that the Commission has squarely addressed this very issue and has stated that a service provided by unlicensed devices is not a CMRS.[13/]

IV. THE PRESUMPTION SHOULD PROTECT MOBILE AND PORTABLE DEVICES.

10. Metricom argued in its Petition for Reconsideration that new Rule Section 90.361(c) should be made clear so that mobile and portable Part 15 devices operating outdoors have the benefit of the presumption. While SW disagrees with this assertion,[14/] it offers no justification for its views on this subject.[15/] SW's interpretation of this Rule ignores reality.

[11/] Even Pinpoint's Opposition at p. 21 agrees with Petitioners.

[12/] Teletrac Opposition at n. 25.

[13/] See Second Report and Order, Regulatory Treatment of Mobile Services, GN Docket No. 93-252, 9 FCC Rcd 1411 (1994) at ¶ 37.

[14/] SW Opposition p. 13.

[15/] Similarly, Pinpoint at p. 17 of its Opposition offers absolutely no justification for its conclusory and self-serving statement that "a blanket protection from interference complaints for (continued...)

Under SW's interpretation, a cordless phone operated outside on a balcony or a rooftop higher than 15 meters would not come within the presumption inherent in the Rule; but, if the very same cordless phone were operated on the street, it would.[16/] It is simply not good public policy to hold a consumer liable for interference caused by a cordless phone when (i) the permissible operation of the device is confusing, at best; and, (ii) the rule would be impossible to enforce because of the portable and intermittent use of the device.

11. The modification to new Rule Section 90.361 sought by Petitioners is not at odds with Part 15's secondary status (as SW claims) any more than the original presumption inherent in new Rule Section 90.361 is. To the contrary, Petitioners' request to clarify that the presumption extends to mobile and portable devices will save a great deal of time and trouble when attempting to enforce new Rule Section 90.361.

[15/](...continued)
portable and mobile Part 15 devices could also prove to be an exception that renders the Rule nugatory, as most unlicensed devices are or can be made portable or mobile." Pinpoint belabors the obvious: Part 15 devices are generally mobile or portable. However, it should not be too difficult for Pinpoint or anyone else to distinguish between a mobile or portable device and one which is fixed in place. This argument should, therefore, be disregarded by the Commission as virtually meaningless.

[16/] Petitioners cannot believe that SW really wants to waste human and fiscal resources tracking millions of cordless phones and their users in an effort to identify real or potential sources of interference, or to require labels on cordless phones indicating that they may not be used outdoors more than 5 meters above the ground unless power is attenuated.

V. THE HEIGHT THRESHOLD IN NEW RULE 90.361 SHOULD BE DELETED.

12. Deleting the 5 and 15 meter height restriction of new Rule Section 90.361(c)(2) would not, as SW claims, elevate Part 15 above LMS by subjecting LMS to even greater interference and degradation of its signal.[17/] SW offers absolutely no proof of its assertion.[18/]

13. The height threshold of new Rule Section 90.361(c) does not enhance LMS operating characteristics and should be deleted. Several members of the Part 15 industry, including Petitioners, depend on outdoor antennas transmitting with full Part 15 power at heights more than 5 meters above ground. Limiting these operations could cause the demise of many Part 15 services.[19/] While Petitioners understand Pinpoint's assertion that the new Rules do not prohibit unlicensed transmitters at heights above 15 meters,[20/] Pinpoint surely understands the potential consequences that face users and manufactures of Part 15 devices that operate above 15 meters in a regulatory model that only protects devices operated below 15 meters.

[17/] See, Section I supra regarding the issue of the elevation of Part 15 over LMS in the band hierarchy that SW alleges would occur if the height threshold were deleted as requested by Petitioners in their PFR.

[18/] Likewise, Pinpoint's Opposition at p. 7 is unsupported and makes no sense where it states: "Making matters worse, as Pinpoint observed, the height-power attenuation Rule incorporated into the presumption has the irrational effect of allowing more powerful systems at 15 meters than at 5 meters to be insulated from interference complaints." How can a system with less power at 15 meters be "more powerful?"

[19/] Pinpoint at p. 16 of its Opposition makes an assertion similar to SW that deletion of the height threshold will make Part 15 more senior in the hierarchy of users. Pinpoint does not say why it feels this way and it is, therefore, difficult for Petitioners to reply to this bald assertion other than to say they disagree.

[20/] Pinpoint Opposition at p. 15.

VI. WIDEBAND FORWARD LINKS SHOULD NOT BE PERMITTED IN THE BAND.

14. Pinpoint makes yet another attempt to include wideband forward links in the band.[21/] It is not correct, as Pinpoint alleges, that it has never been shown that wideband forward links cause the levels of interference claimed. The record in this proceeding is replete with evidence that wideband forward links are band-jammers and are antithetical to a shared band.

VII. MANDATORY NEGOTIATION WOULD NEGATE NEW RULE 90.361.

15. The Commission should not amend new Rule Section 90.361, as advocated by Symbol Technologies, Inc., to require that operators of Part 15 devices negotiate with operators of LMS systems each time a Part 15 device causes "persistent and recurrent interference" to an LMS system.[22/] Symbol also wants the Commission to require the operator of the Part 15 device to negotiate in good faith with the LMS operator but places no such obligation on the LMS operator. A requirement to negotiate would nullify the Commission's intent in establishing the presumption of non-interference and force Part 15 operators to severely curtail their operations lest they be accused of being sources of "persistent and recurrent" interference to LMS systems.

[21/] Pinpoint Opposition at p. 17.

[22/] Opposition of Symbol Technologies, Inc., at ¶ 18.

VIII. THE NEW RULES SHOULD COVER ALL WIDEBAND SYSTEMS.

16. Several operators of non-multilateration systems (the "Operators") oppose Petitioners' request to extend the new Rules to non-multilateration systems.[23/] The Operators have misunderstood Petitioners' PFR.

17. Petitioners are concerned about non-multilateration systems that are using wideband receivers. Petitioners believe the Operators are under the mistaken impression that Petitioners are targeting conventional narrowband non-multilateration systems. As demonstrated by the record in this proceeding, it is the wideband component of LMS systems that required the Rules adopted in the Report and Order.[24/] Therefore, Petitioners believe that these new Rules should extend to all potential users of LMS wideband receivers in the band including non-multilateration systems.[25/]

[23/] The Association of American Railroads ("AAR"), Amtech Corporation ("Amtech") and TI oppose extending to non-multilateration systems portions of new Rule Sections 90.353, 90.357 and 90.361 which presently apply only to multilateration systems. AAR Opposition at pp. 5-7, Amtech Opposition at pp. 9-15, TI Opposition at pp. 12-19.

[24/] See, e.g., Comments of Ademco dated March 15, 1994, at ¶¶ 7-15, Comments of Metricom dated June 24, 1993, at Appendix A.

[25/] Presently, non-multilateration systems do not use wideband receivers to send or receive signals. Such systems rely exclusively on narrowband receivers. However, as non-multilateration systems develop new uses, such systems may begin to utilize wideband receivers in their operations. Petitioners' point has always been that such wideband systems will pose the same interference difficulties as wideband multilateration systems, and, therefore, should be regulated the same way.

WHEREFORE, the premises considered, Metricom, Inc. and Southern California Edison Company respectfully request that the Commission take action in this proceeding consistent with the views expressed in their Petition for Reconsideration, their Opposition to Petitions for Reconsideration, and this Reply.

Respectfully submitted,

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Certificate of Service

I certify that a copy of the foregoing "Reply to Oppositions to Petitions for Reconsideration of Metricom, Inc. and Southern California Edison Company" was served this 7th day of June, 1995, by U.S. Mail, first class, postage prepaid, on the following:

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